

# Plant Systematics and Evolution

**Vol. 222 2000**

**ISSN 0378-2697**



**SpringerWienNewYork**

---

# Plant Systematics and Evolution

---

## **Editor-in-Chief**

F. H. Hellwig

## **Editorial Assistant**

Uta Schwabe

## **Board of Associate Editors**

I. Al-Shehbaz, St. Louis, Missouri

K. Bachmann, Gatersleben

J. V. Crisci, La Plata

P. K. Endress, Zurich

E. M. Friis, Stockholm

M. Hesse, Vienna

P. Y. Ladiges, Melbourne

C. A. Stace, Leicester

K. J. Sytsma, Madison, Wisconsin

## **Book Reviews Editor**

M. Endress, Zurich

Vol. 222

No. 1–4

2000

pp. 1–320

Published June 29, 2000

The exclusive copyright for all languages and countries, including the right for photomechanical and any other reproductions including microform is transferred to the publisher. For copyright regulations and for further information, see the detailed "Instructions to the Authors".

© 2000 Springer-Verlag/Wien

## Contents

Ackerman, J. D.: Abiotic pollen and pollination: ecological, functional, and evolutionary perspectives . . . . .	167
Bechar, A., s. Vaknin, Y.	
Bergström, G., s. Dobson, H. E. M.	
Bernhardt, P.: Convergent evolution and adaptive radiation of beetle-pollinated angiosperms . . . . .	293
Cane, J. H., s. Roulston, T. H.	
Cruden, R. W.: Pollen grains: why so many? . . . . .	143
Dafni, A., Firmage, D.: Pollen viability and longevity: practical, ecological and evolutionary implications . . . . .	113
Dobson, H. E. M., Bergström, G.: The ecology and evolution of pollen odors . . . . .	63
Edwards, T. J., s. Johnson, S. D.	
Eisikowitch, D., s. Vaknin, Y.	
Firmage, D., s. Dafni, A.	
Franchi, G. G., s. Nepi, M.	
Gan-Mor, S., s. Vaknin, Y.	
Halbritter, H., s. Hesse, M.	
Hesse, M.: Pollen wall stratification and pollination . . . . .	1
Hesse, M., Vogel, S., Halbritter, H.: Thread-forming structures in angiosperm anthers: their diverse role in pollination ecology . . . . .	281
Johnson, S. D., Edwards, T. J.: The structure and function of orchid pollinaria . . . . .	243
Lunau, K.: The ecology and evolution of visual pollen signals . . . . .	89
Nepi, M., Franchi, G. G.: Cytochemistry of mature angiosperm pollen . . . . .	45
Pacini, E.: From anther and pollen ripening to pollen presentation . . . . .	19
Ronen, B., s. Vaknin, Y.	
Roubik, D. W.: Deceptive orchids with Meliponini as pollinators . . . . .	271
Roulston, T. H., Cane, J. H.: Pollen nutritional content and digestibility for animals . . . . .	187
Stroo, A.: Pollen morphological evolution in bat pollinated plants . . . . .	225
Thorp, R. W.: The collection of pollen by bees . . . . .	211
Vaknin, Y., Gan-Mor, S., Bechar, A., Ronen, B., Eisikowitch, D.: The role of electrostatic forces in pollination . . . . .	133
Vogel, S., s. Hesse, M.	



